

From: Bahadori, Tina [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=7DA7967DCAFB4C5BBC39C666FEE31EC3-BAHADORI, TINA]
Sent: 10/3/2018 1:11:10 PM
To: ORD-Exec-Council-Directors [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=27ecb6069df540d1b77c19b84ba8dea4-ORD-Exec-Co]; ORD-Mgmt-Council [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0d052b33344446a58a540f6b8c1ed50f-ORD-Mgmt-Council]
CC: ORD-IOAA-Front Office Support [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=2a6228178a264ebb9d4ed55c6b23d304-ORD-IOAA-Fr]; Champlin, Anna [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=f59084b342934f42aba4643b326f8611-Osaka, Anna]; Lehman, Rachel [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3e40fa5a1ffa4b77bdd1134f96614689-Lehman, Rac]
Subject: NCEA Weekly Report for October 3rd, 2018

National Center for Environmental Assessment Weekly Report for October 3rd, 2018

Notables listed below and 30-day Outlook attached.

WITHIN EPA

IRIS Arsenic Assessment Meeting. At the request of Office of Pesticide Programs, on October 3rd, the IRIS arsenic team will meet with program and regional offices to discuss mode of action evaluation strategies for the assessment.

OAR/OAQPS Risk and Exposure Assessment of NO_x-SO_x. Office of Air Quality Planning and Standards Health and Environmental Impacts Division's (OAQPS/HEID) is in the process of Risk and Exposure Assessment of the NO_x SO_x secondary standards. NCEA's Christopher Clark and Robert Sabo have been invited to participate in weekly team meetings and provide technical support as needed.

PUBLIC ACTIVITIES

Meeting with TCEQ and EBTC Scientists. On October 9th, two toxicologists from Texas Commission on Environmental Quality (TCEQ) and a member of the Evidence-Based Toxicology Collaboration (EBTC) at John Hopkins will visit headquarters offices of ORD to discuss application of Systematic Review to human health assessments. They will visit with staff from the Office Chemical Safety and Pollution Prevention (OCSPP) and ORD and present their work at the October Systematic Review Community of Practice meeting. TCEQ has recently been developing their approach for applying systematic review to their health hazard assessments and is actively in the learning phase of systematic reviews. Since 2011, EBTC has been involved in applying systematic review principles to scientific evaluations that inform policy decisions.

IARC Meeting. From October 9th -16th, Leonid Kopylev will be an invited participant in a meeting of the International Agency for Research on Cancer (IARC) Monograph Working Group in Lyon, France. This meeting will focus on the development of IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, Volume 123: Some Nitrobenzenes and Other Industrial Chemicals. The preliminary list of chemicals to be considered can be found at <https://monographs.iarc.fr/wp-content/uploads/2018/06/vol123-listagents.pdf>

OTHER ITEMS OF INTEREST

"Causal Methods in Epidemiological Studies of Particulate Matter and Mortality" Meeting. On October 3rd -4th, Jason Sacks has been invited to be an expert panelist at the "Causal Methods in Epidemiological Studies of Particulate Matter

and Mortality” meeting that is taking place in Chapel Hill, North Carolina (NC). This meeting will highlight and discuss three industry funded projects that are applying causal inference methodologies to uniform datasets to explore the association between PM exposures and mortality.

Meeting with Babes Bolyai University Researchers. On October 3rd – 4th, the National Risk Management Research Laboratory (NRMRL) will be hosting 5 Romanian researchers from Babes Bolyai University, Cluj-Napoca, Romania. NRMRL and NCEA researchers will be meeting with these research collaborators. NCEA researcher Dr. Cormier will discuss types of dissolved minerals that can be associated with mining effluents and differences in toxicity. In addition, Dr. Jeffrey Dean and Dr. Lucy Lizarraga will discuss the use of new methods such as read across in chemical assessments.

Presentation on Ecological Risk of Gene Drives at The Wildlife Society Annual Meeting. On October 8th, Caroline Ridley will deliver an invited presentation at The Wildlife Society annual conference in Cleveland, OH about assessing the ecological risk of gene drives. It is part of a symposium called “Current and future genetic technologies for wildlife management.” Her co-authors are Meridith Fry, Jeff Dean, and Glenn Suter.

QEEN II. On October 9th -10th, Annie Jarabek will serve as invited chair of a session entitled “Dosimetry Modeling and Computational Approaches to Evidence Integration” at the upcoming QEEN II: 2nd Quantifying Exposure to Engineered Nanomaterials from Manufactured Products Workshop in Washington DC.

RECENT PRODUCTS & PUBLICATIONS

“Simulating exposure-related behaviors using agent-based models embedded with needs-based artificial intelligence.” The Journal of Exposure Science & Environmental Epidemiology published *“Simulating exposure-related behaviors using agent-based models embedded with needs-based artificial intelligence,”* which Dustin Kapraun is a coauthor on. This article describes a model that generates (simulated) longitudinal human behavior data. The authors argue that such data, along with information about product composition and other exposure factors, could be used to inform exposure assessments. The full article can be found at <https://www.nature.com/articles/s41370-018-0052-y>.

“Environmental Chemicals in Breast Milk and Formula: Exposure and Risk Assessment Implications.” The Environmental Health Perspectives journal published *“Environmental Chemicals in Breast Milk and Formula: Exposure and Risk Assessment Implications”* which Geniece Lehmann and Erin Hines are co-authors on. The paper focuses on recent U.S. background levels of environmental chemicals in breast milk and infant formula and describes how the risk assessment process can be used to evaluate the potential for health consequence to result from infant exposure.

“Infant dietary exposures to environmental chemicals and infant/child health: A critical assessment of the literature.” The Environmental Health Perspectives journal published *“Infant dietary exposures to environmental chemicals and infant/child health: A critical assessment of the literature,”* which Geniece Lehmann and Erin Hines are coauthors on. The paper focuses on an evaluation of the epidemiological literature describing infant health impacts associated with environmental chemicals found in breast milk.

“Hazards of diisobutyl phthalate (DIBP) exposure: A systematic review of animal toxicology studies.” The Environmental International journal has accepted *“Hazards of diisobutyl phthalate (DIBP) exposure: A systematic review of animal toxicology studies,”* which was coauthored by Erin Yost, Sue Euling, Andre Weaver, Brandy Beverly, Nagu Keshava, Anu Mudipalli, Xabier Arzuaga, Todd Blessinger, Laura Dishaw, Andrew Hotchkiss and Sue Makris.

“Reframing Future Risks of Extreme Heat in the United States.” Earth’s Future journal has accepted *“Reframing Future Risks of Extreme Heat in the United States,”* which Chris Weaver is a coauthor on. The accepted version is available online at <https://agupubs.onlinelibrary.wiley.com/doi/abs/10.1029/2018EF000943>.

Cave Reactor Model. Malcolm Field developed a numerical model that solves a system of two PDEs to simulate water flow and solute reactivity in a flooded phreatic conduit in the same manner as a model of a chemical reactor is simulated. The model was then verified using a tracer study in which a reactive tracer was employed. A paper describing

the model entitled “Modeling Solute Reactivity in a Phreatic Solution Conduit Penetrating a Karst Aquifer” has been accepted for publication in the Journal of Contaminant Hydrology.

Recent updates to EPA’s Report on the Environment (ROE). As of the close of FY2018, the Report on the Environment announces the completion of updates to 39 environmental and human health indicators. The ROE presents the most reliable and readily-available indicators of national environmental and health status and trends relevant to the Agency’s mission and the nation’s environment.

=====

Tina Bahadori, Sc.D.
Director, National Center for Environmental Assessment (EPA/ORD/NCEA)
National Program Director, Human Health Risk Assessment (EPA/ORD/HHRA)
RRB Room 71210; Telephone: 202-564-7903; Mobile: 202-680-8771